

SECTION 12 – VILLAGE & NEIGHBORHOOD MIXED USE DISTRICT (VMU)

12.1 Purpose

- 12.1.1** Promote development in Grafton's village and neighborhood centers that encourages a mixed-use environment that is less automobile dependent and more pedestrian-friendly.
- 12.1.2** Encourage a diverse mix of business, commercial, office, residential, institutional and entertainment uses for workers, visitors, and residents at an appropriate scale for each village and neighborhood center.
- 12.1.3** Permit uses that promote conversion of existing buildings in a manner that maintains the visual attributes, prevailing settlement patterns, and architectural character of existing development within the district.
- 12.1.4** Minimize visual and functional conflicts between residential and nonresidential uses within and abutting the district.
- 12.1.5** Promote pedestrian and bicycle circulation and safety.
- 12.1.6** Encourage work/live space.
- 12.1.7** Encourage vibrant public and publicly-oriented private open spaces that enhance the district by reinforcing pedestrian orientation and multi-modal transportation opportunities.

12.2 Applicability and Administration

- 12.2.1 Districts.** The Village & Neighborhood Mixed Use Districts (VMU) is hereby established and consists of those areas shown on the Town of Grafton Zoning Map on file with the Town Clerk. The District boundaries are as indicated on the Map. The VMU includes the following districts:

12.2.1.1. South Grafton Village Center (VMU-SG)

12.2.1.2. Worcester Street Neighborhood Center (VMU-NC)

- 12.2.2 Applicability.** The site and design guideline criteria within this Section shall be applicable to all residential buildings with three or more units and non-residential developments within the district. This includes any new building construction; a change in building use (adaptive reuse of an existing building) or a significant alteration of the existing building facades; work which results in the increase of floor area through either an addition to the principal structure; addition of a new accessory structure, or significant change to an existing accessory structure; or any activity requiring a new curb cut.

12.2.2.1. It is recommended that Applicants for project in the VMU consult with Town departments and officials prior to the submission of an application under this

bylaw. (T.M. 5/9/16)

12.2.2.2. Prior to the issuance of a building permit for a project proposed in the VMU, the applicant shall submit a site plan and material demonstrating compliance with Section 12.7 through Section 12.9 of this By-law. Site Plan and supportive materials shall be reviewed by the Town Planner for conformance with the performance standards and purpose of this bylaw and an advisory opinion shall be prepared for consideration by the Building Inspector. Advisory opinion may include recommendations for conformance with the performance standards and intent of the bylaw, which may require the amendments or changes to the design prior to issuance of a building permit. (T.M. 5/9/16)

12.2.3 SPGA. The Planning Board shall be the special permit granting authority for the VMU.

12.2.4 Affordability. For projects greater than eight residential units, projects must include affordable housing units as specified below: (T.M. 5/9/16)

12.2.4.1 Ownership Units. For all Projects where the Affordable Units proposed are Homeownership Units, not less than twenty percent (20%) of the total housing units constructed in a Project shall be Affordable Housing.

12.2.4.2 For all Projects where the Affordable Units proposed are Rental Units not less than twenty five percent (25%) of total housing units in any building containing rental units shall be Affordable Housing;

12.2.4.3 For purposes of calculating the number of units of Affordable Housing required within a Project, any fractional unit of 0.5 or greater shall be deemed to constitute a whole unit.

12.2.4.4 Affordable Units shall comply with requirements of Massachusetts Executive Office of Housing and Economic Development requirements for counting towards the Town's Subsidized Housing Inventory.

12.3 Definitions

12.3.1 Cottage. A small detached single-family dwelling with narrow massing, a maximum gross square footage (GSA) of 1,400, and a maximum of 2 bedrooms. Cottages are permitted on individual lots or detached condominiums as part of a Cottage Court which is a type of Pocket Neighborhood.

12.3.2 Cottage Court. This type of Pocket Neighborhood Development consists of multiple small, detached single family homes, arranged around a common courtyard. The shared courtyard takes the place of private yard space and becomes an important community-enhancing element of this neighborhood. The Cottage Court is appropriately scaled to fit within or nearby medium-density neighborhoods. This form of residential development enables appropriately scaled, well-designed, higher density

developments important for providing a broad choice of housing types in a walkable environment.

12.3.3 Cohousing/Housing Cooperative. This type of Pocket Neighborhood is a community of private homes clustered around shared building and community spaces. Each attached or single family home has traditional amenities, including a private kitchen. Shared spaces typically feature a common house, which may include a large kitchen and dining area, laundry, and recreational spaces. Other shared spaces include community garden plots, recreational fields, and shared work spaces.

12.3.4 Pocket Neighborhood. This form of residential development is a cohesive cluster of homes gathered around a variety of common open space amenities. Pocket Neighborhoods are typically on smaller development tracts than conventional neighborhoods with more common open space and less private lawn space.

12.3.5 Mixed Use Development. A development of two or more compatible land uses, such as residential, office, retail, recreational, and light industrial.

12.3.6 Single Family Attached Dwelling. A small footprint attached single family residential buildings have narrow massing and may be located on individual or common lots. Each unit is separated horizontally by a common wall and groups of buildings may be separated by a common driveway or open space. Townhouses and Rowhouse are examples.

12.4 Permitted Uses and Residential Density

12.4.1 Allowed Uses. The uses allowed as of right or special permit in the VMU districts are listed in Section 3.2.31. Use Regulation Schedule. Pre-existing detached single family homes are also permitted by right.

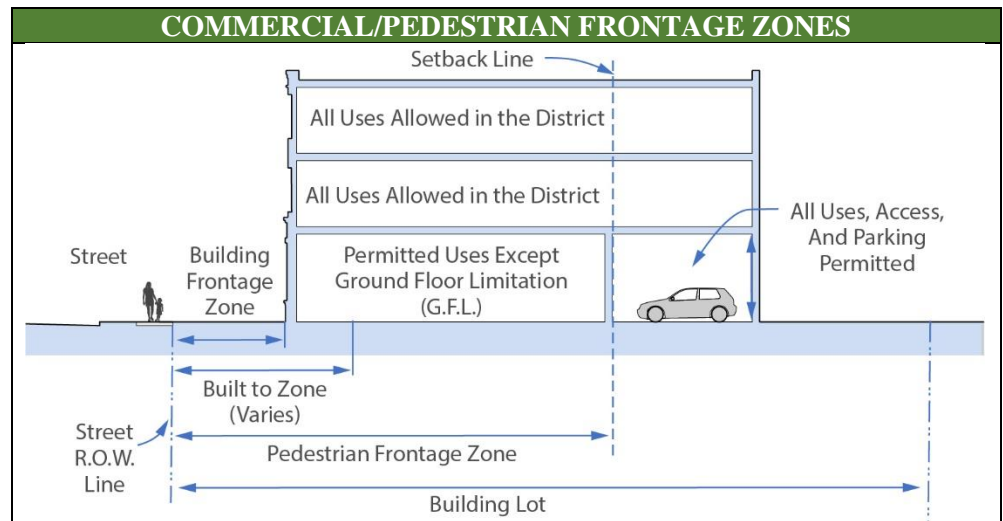
12.4.2 Allowed Residential Density. The allowed residential density as of right or special permit and measured by the number of dwelling units per acre in the VMU districts are listed in Section 12.4.2.1. Residential Density Schedule.

12.4.2.1. RESIDENTIAL DENSITY SCHEDULE (BY RIGHT/SPECIAL PERMIT)				
USES		VMU-SG	VMU-WS	RESERVED
a.)	Mixed-Use Developments	8/16	8/16	
b.)	Single Family Attached Dwelling	8/16	8/16	
c.)	Pocket Neighborhood (Cottage Court and Cohousing Community)	8/16	8/16	
d.)	Multi-family Dwelling	8/16	8/16	
e.)	Artist Live / Work / Gallery	8/16	8/16	

12.5 Performance Standards for Specified Uses

12.5.1 Location and Distribution of Uses.

- 12.5.1.1 Commercial and Mixed Use Buildings. The ground floor of a commercial building or mixed use building (any combination of retail, office, and residential) shall be occupied by commercial uses only. For projects consisting of multiple buildings, commercial use shall be required for the principal building and residential may be permitted on the first floor of secondary buildings upon issuance of a special permit. (T.M. 5/9/16).






- 12.5.2.1 Frontage Zones. In the VMU Districts, properties fronting on specified public streets as shown on the Town of Grafton Zoning Map are subject to use limitations. In Commercial/Pedestrian Frontage Zones, the ground floor of a primary building shall be occupied by commercial or civic use (any combination of retail, office, restaurant, or publicly-oriented civic use as allowed by Section 12.4.1.) to a depth of 60 feet into the lot. In Residential Frontage Zones the primary buildings shall be occupied by residential uses as allowed by Section 12.4.1.

- 12.5.2 **Density.** Maximum residential density shall be eight dwelling units per acre, unless allowed through the issuance of a special permit pursuant to 12.4.2.d. (T.M. 5/9/16)




- 12.5.3 **Drive-Up Windows.** Drive-up windows associated with retail stores, personal/consumer services, banks, restaurants, and other uses must be located to the rear of the primary building and may be attached or detached structures.

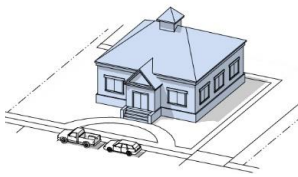
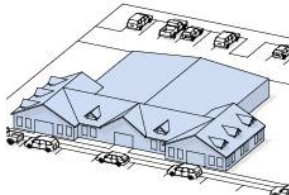
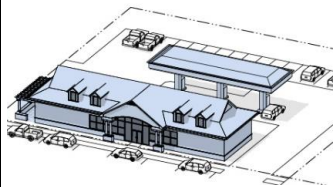
12.6 Standards for Specified Building and Development Types

12.6.1 Residential Building Types.




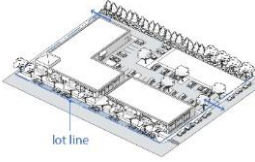
12.6.1. RESIDENTIAL BUILDING TYPES AND DESIGN STANDARDS				
1. BUILDING TYPES AND DEFINITIONS				
	WORKER COTTAGE (C)	ATTACHED SINGLE FAMILY DWELLING (SFA)	MULTI-FAMILY BUILDING (MF)	
1.1 BUILDING DIAGRAM				
1.2 DEFINITION	A small detached single-family dwelling with narrow massing. They are permitted on individual lots or detached condominiums as part of a Pocket Neighborhood Development.	A small footprint attached single family residential buildings have narrow massing and may be located on individual or common lots. Each unit is separated horizontally by a common wall and groups of buildings may be separated by a common driveway or community space.	A large floor plate residential building type with three (3) or more dwelling units vertically and horizontally integrated and accessed by common entrances and hallways. Dwelling Units may be ownership, rental, and share-based. MF Buildings are not intended for non-residential uses.	
2. LOT STANDARDS				
2.1	Lot Size (S.F.) (Min.)	Not Required	1,200 SF	Not Required
2.2	Street Frontage (Min./Max.)	25 Ft. / 40 Ft.	18 Ft. / 24 Ft.	80 Ft.Min.
2.3	Lot Depth (Min./Max.)	Not Required	50 Ft	Not Required
2.4	Front Yard Setback (Min./Max.)	5 Ft. / 20 Ft.	5 Ft./15 Ft.	10 Ft. / 30 Ft.
2.5	Side Yard (Min.)	5 Ft.	0 Ft.	15 Ft.
2.6	Rear Yard (Min.)	10 Ft.	15 Ft.	20 Ft.
2.7	Outdoor Amenity Space Coverage (Min.)	20%	20%	20%
3. DESIGN STANDARDS				
3.1	Building Height (Max.)	1.5 Stories / 20 Ft.	2.5 Stories / 35 Ft.	4 Stories / 40 Ft.
3.2	Street Facing Wall Width (Min.)	18 Ft.	18 Ft.	60 Ft.
3.3	Street Facing Wall Width (Max.)	20 Ft.	18 Ft./24 Ft.	100 Ft.
3.4	Street Facing Entrance	Required	Required	Required
3.5	Maximum Building Footprint (SF)	Not Required	Not Required	Not Required
4. ADDITIONAL STANDARDS				
4.1		Maximum of 1 Dwelling Unit per building	Off-street parking is not allowed between the buildings	
4.2		Maximum unit size is 1,400 GFA and 2 Bedrooms	A maximum of eight (8) units can be attached by a common wall before accessway of 20 feet is provided for pedestrians, vehicles or outdoor amenity space.	
4.3		See Section 12.6.3 for Pocket Neighborhood Development Standards		

12.6.2 Commercial and Mixed Use Building Types.

12.6.2.A. COMMERCIAL AND MIXED-USE BUILDING TYPES AND DESIGN STANDARDS				
1. BUILDING TYPES AND DEFINITIONS				
		LIVE-WORK SHOPHOUSE (LW)	GENERAL COMMERCIAL BUILDING (GCB)	MIXED USE BUILDING (MUB)
1.1 BUILDING DIAGRAM				
1.2 DEFINITION		A small floor plate attached residential building type with one (1) dwelling unit and one (1) ground floor commercial unit. Live/Work units are occupied by the owner of the building and the commercial operation.	A variable floor plate building type that typically accommodates a variety of ground floor commercial uses and upper office uses at the scale that is compatible and compliments to its given district. GC Buildings are not intended for residential uses.	A variable floor plate building type that typically accommodates a variety of ground floor commercial uses and upper residential and office uses at a scale that is compatible and complimentary to its given district.
2. LOT STANDARDS				
2.1	Lot Size (S.F.) (Min.)	Not Required	Not Required	Not Required
2.2	Street Frontage (Min./Max.)	40 Ft. Min.	50 Ft. Min.	50 Ft. Min.
2.3	Lot Depth (Min./Max.)	Not Required	Not Required	Not Required
2.4	Front Yard Setback (Min./Max.)	0 Ft./15 Ft.	0 Ft./20 Ft.	0 Ft. / 20 Ft.
2.5	Side Yard (Min.)	0 Ft./15 Ft.	10 Ft. (0 Ft if Common Wall)	10 Ft. (0 Ft. if Common Wall)
2.6	Rear Yard (Min.)	20 Ft.	15 Ft.	20 Ft.
2.7	Outdoor Amenity Space Coverage (Min.)	15%	10%	20%
3. DESIGN STANDARDS				
3.1	Building Height (Max.)	2.5 Stories / 35 Ft.	3 Stories / 40 Ft.	4 Stories / 40 Ft.
3.2	Street Facing Wall Width (Min.)	80 Ft.	60 Ft.	60 Ft.
3.3	Street Facing Wall Width (Max.)	100 Ft.	100 Ft.	150 Ft.
3.4	Street Facing Entrance	Required	Required	Required
3.5	Maximum Building Footprint (SF)	Not Required	20,000 SF	20,000 SF
4. ADDITIONAL STANDARDS				
4.1			One-Story buildings must have a minimum street facing façade height of 18 feet.	One-Story buildings must have a minimum street facing façade height of 18 feet.
4.2			Side Setback is not required when there is a common wall; a minimum 10 foot side setback is required when there is not a common wall to accommodate pedestrian and/vehicle access to the side and rear of the property	Side Setback is not required when there is a common wall; a minimum 10 foot side setback is required when there is not a common wall to accommodate pedestrian and/vehicle access to the side and rear of the property

12.6.2.B. COMMERCIAL AND MIXED-USE BUILDING TYPES AND DESIGN STANDARDS				
1. BUILDING TYPES AND DEFINITIONS				
	COMMUNITY BUILDING (CB)	FABRICATION/FLEX BUILDING (FFB)	GAS BACKWARDS (GB)	
1.1 BUILDING DIAGRAM				
1.2 DEFINITION	A building located and designed for public assembly such as for social, religious, educational, recreational, and similar civic uses. Civic Buildings may be privately or publicly owned and operated.	A building located and designed to accommodate a small or medium scale fabrication and light industrial uses. Flex buildings are also used to provide affordable space to small and creative business enterprises. These buildings may be combined with residential uses in Mill or Retrofit Developments	This building type reverses the conventional site layout for gas stations with convenience store by placing the storefront along the street line and the gas pumps and canopy behind. This reverse layout highlights the building, shields the utilitarian pump/canopy and pulls the curb cuts away from the intersection, creating easier access.	
2. LOT STANDARDS				
2.1	Lot Size (S.F.) (Min.)	Not Required	Not Required	Not Required
2.2	Street Frontage (Min./Max.)	80 Min.	50 Min.	100 Min.
2.3	Lot Depth (Min./Max.)	Not Required	Not Required	100 Min.
2.4	Front Yard Build-To-Zone (Min./Max)	20 Ft. Min.	0 Ft. / 30 Ft.	5' Min./15' Max. (Primary/Secondary Streets)
2.5	B-T-Z/Front Lot Line Buildout (Min.)	50%	50%	25% (Primary/Secondary Streets)
2.6	Side Yard (Min.)	15 Ft.	20 Ft. (0 Ft if Common Wall)	20 Ft.
2.7	Rear Yard (Min.)	20 Ft.	20 Ft.	20 Ft.
2.8	Outdoor Amenity Space Coverage (Min.)	20%	10%	10%
3. DESIGN STANDARDS				
3.1	Building Height (Max.)	3 Stories / 45 Ft.	2 Stories / 40 Ft.	1.5/(24') Max.
3.2	Street Facing Wall Width (Min.)	60 Ft.	60 Ft.	4,000 S.F.
3.3	Street Facing Wall Width (Max.)	100 Ft.	100 Ft.	
3.4	Street Facing Entrance	Required	Required	Required
3.5	Maximum Building Footprint (SF)	Not Required	20,000 S.F.	4,000 S.F.
4. ADDITIONAL STANDARDS				
4.1			Side Setback is not required when there is a common wall; a minimum 10 foot side setback is required when there is not a common wall to accommodate pedestrian and/vehicle access to the side and rear of the property.	Gas station canopies should be designed as an integral part of the station architecture whenever possible.
4.2				Secondary entrance required to the rear for access to gas pumps.

12.6.3 Development Types.

12.6.3. DEVELOPMENT TYPES AND STANDARDS					
		MIXED USE DEV. (MUD)	POCKET NEIGHBORHOOD (PN)	GENERAL RES. DEV. (GRD)	GENERAL COMM. DEV. (GCD)
					
1. DEVELOPMENT STANDARDS					
1.1	Tract Size (Min.)	20,000 S.F.	20,000 S.F.	20,000 S.F.	20,000 S.F.
1.2	Tract Street Frontage (Min.)	80 Ft.	80 Ft.	80 Ft.	80 Ft.
1.3	Tract Front Yard (Min.)	Not Required	20 Ft.	Not Required	Not Required
1.4	Side/Rear Yard (Min.)	15 Ft.	15 Ft.	15 Ft.	15 Ft.
1.5	Outdoor Amenity Space (Min.)	15% of Tract Size	20% of Tract	20% of Tract Size	15% of Tract Size
1.6	Outdoor Amenity Space Types	Park, Pocket Park, Playground or Recreation Field, Square, Plaza	Park, Pocket Park, Playground or Recreation Field	Park, Pocket Park, Playground or Recreation Field, Square, Plaza	Park, Pocket Park, Playground or Recreation Field, Square, Plaza
1.7	Space Between Buildings (Min.)	20 Ft.	15 Ft.	15 Ft.	20 Ft.
1.8	Courtyard Size (Min.)		3,000 S.F.		
1.9	Courtyard Width (Min.)		40 Ft.		
1.10	Courtyard Area Per DU		600 S.F.		
2. PERMITTED BUILDING TYPES					
2.1		Multi-Family, SF Attached, Live-Work/Shophouse, General Commercial, Mixed-Use, Flex Space/Fabrication, Community	Cottage, Cooperative (Multi-Family Buildings with a maximum of 3 dwelling units)	Multi-Family, SF Attached, Live-Work/Shophouse, Community	General Commercial Flex Space/Fabrication, Community
3. ADDITIONAL STANDARDS					
3.1			Maximum Cottage Unit GFA is 1,400 GFA and 2 Bedrooms		
3.2			Maximum Cohousing Unit GFA is 1,800 GFA and 3 Bedrooms		
3.3			Cottage Courts and Cohousing Developments may include a community garden, common house, co-work space, and other common access site amenities		

12.7 Parking

The following guidelines are included to ensure that new and renovated off-street parking areas are constructed in accordance with the district's desired design character, the provisions of this bylaw, and other town bylaws pertaining to parking.

12.7.1 Placement and Design. Parking lots for new construction shall be located to the side and rear of the lot unless such a location is not feasible. Parking is prohibited within the front yard.

12.7.2 Screening. Parking lots that abut public rights of way or grade parking under the building shall be screened with one or a combination of the following:

12.7.2.1 A low wall made of concrete, masonry or other suitable material not exceeding a height of 3 feet.

- 12.7.2.2 Raised planters planted with a minimum of 80% evergreen shrubs not to exceed a total height of 6 feet (including planter).
- 12.7.2.3 Landscaping consisting of a mix of trees and shrubs provided that 80% of the shrub plantings are evergreen.
- 12.7.2.4 Walls, fencing and architectural details shall complement the materials of adjacent architectural styles.
- 12.7.2.5 Where walls are provided, planting areas shall be a minimum width of 4 feet and should be located adjacent to the public right of way.
- 12.7.2.6 Where possible, parking areas shall be interconnected in a manner that allows the unobstructed flow of pedestrians between uses and parking areas.

12.7.3 Bicycle Parking. In large parking lots (20 or more spaces) provision for bicycle racks shall be provided in locations that are safely segregated from automobile traffic and parking.

12.7.4 Shared Parking. Shared parking is the approved use of the same off-street parking spaces for two or more uses where peak parking demand of the different uses occurs at different times of the day, or, where various uses are visited without moving the automobile; and, where the division of parking spaces is a net decrease from the combined total of each use's individual off-street parking requirements, if required separately.

12.7.4.1 Requirements and Criteria. Shared parking arrangements are subject to review and approval by the Planning Board subject to the following requirements and criteria:

- a.) Submission of a reciprocal agreement executed by the owners and operators of the different sources or uses ensuring the long-term joint use of such shared parking, and defining the terms upon which the parking is shared;
- b.) If required by the Planning Board information concerning the following may be requested:
 - (1.) the hours of operation and parking demand for each use; (2.) the hours of peak demand for parking;
 - (3.) a description of the character of the land use and the parking patterns of adjacent uses;
 - (4.) an estimate of the anticipated turnover in parking space use over a 24 hour period of time;
 - (5.) a site plan showing all proposed parking spaces, including the

shared use spaces in the lot and the walking distance to the uses sharing the lot; and

(6.) any other information concerning parking deemed necessary by the Planning Board to render a decision.

c.) In the event that the conditions for shared parking change, or if the shared parking arrangement is discontinued, the applicant shall notify the Planning Board within 10 days. The Planning Board shall then require the applicant to meet the applicable parking requirements found in Section 4.2.2 Off-Street Parking Schedule

12.7.5 Decision. A determination shall be made by the Planning Board that the shared parking:

12.7.5.1 is no more than 500 feet from each use sharing the parking facility;

12.7.5.2 hours of operation and peak demand of the uses involved shall not conflict; and

12.7.5.3 will provide an adequate number of spaces for the applicable uses.

12.7.6 Off-Street Parking Schedule.

12.7.6.1 Multi-family dwelling:

a.) Studio and 1 bedroom – 1 space per unit

b.) 2 bedroom – 1.5 spaces per unit

c.) 3 or more bedrooms – 2 spaces per unit

12.8 Curb Cuts

12.8.1 Design. Developments shall be designed in a manner that minimizes the number of curb cuts. To the extent feasible, access to businesses shall be provided through one of the following methods:

12.8.1.1 from an existing side or rear street thus avoiding the principal thoroughfare; or

12.8.1.1 from a common driveway serving one or more adjacent properties.

12.8.2 Decision. The Planning Board may deny a curb cut if the proposed development is inconsistent with the following guidelines:

12.8.2.1 Curb cuts shall be limited to one unless the Board feels that due to large parcel size an additional cut is justified.

12.8.2.2 When access is available from a public side or rear street the Board may deny a curb cut from a primary street.

12.8.2.3 Shared drives are encouraged between adjacent parcels when appropriate.

12.9 Performance Standards

12.9.1 Pedestrian and Bicycle Access. Provision for safe and convenient pedestrian access shall be incorporated into plans for new construction of buildings and parking areas and should be designed in concert with landscaping plans noted below. Site plans in the VMU should provide for continuity from sidewalks in public streets to all pedestrian entrances on the site, and walkability should be given primary importance over road speed and other access criteria. New construction should improve pedestrian access to buildings, sidewalks and parking areas and should be completed with consideration of pedestrian safety, handicapped access and visual quality. Where appropriate, applicants are encouraged to provide pedestrian and/or bicycle paths or connection to an existing or proposed public pathway or bicycle rail trail connecting the site with abutting areas in order to promote pedestrian and bicycle circulation and safety in village and neighborhood centers. When parking is located in the rear, pedestrian access via a pedestrian-oriented alley or walkway through to the primary street is encouraged.

12.9.2 Landscaping. Landscaping shall be incorporated into new and redeveloped properties in such a way as to create visual relief and interest, provide shade for pedestrian areas and to screen parking and loading areas. Landscape plans shall be prepared by a registered landscape architect, although the Planning Board may, by an affirmative vote of at least 4 members (or 3 when less than 5 are eligible to vote on such application), one of whom may be the Associate Member when sitting in review of the application, authorize deviation from the requirement provided such deviation is not, in the opinion of the Board, contradictory or inconsistent with the intent and guidelines set forth in this Section. Landscape plans shall show the location, type, and size of all proposed plantings as well as enough of the surrounding context such that the Board may determine the plan's appropriateness.

12.9.2.1 Yard Treatments

- a.) Where the distance between structures on adjacent lots is 10 feet or less the yard shall be screened by a solid fence, wall or landscape treatment of evergreen plantings at a height not to exceed 3 feet.
- b.) Where the distance between structures on adjacent lots is greater than 10 feet landscaping shall consist of a combination of materials sufficient to break up the view into the side yard.
- c.) Side yards may, in the alternative, be established as pedestrian walkways to access parking areas to the rear of the building. Such walkways shall be landscaped and lighted for safety.

- d). Where lots abut public rights of way, shade trees with a minimum caliper of 2 ½ inches, shall be provided within a planting strip no less than 4 feet in width and at a rate of one tree per every 40 linear feet.

12.9.2.2 Parking Areas

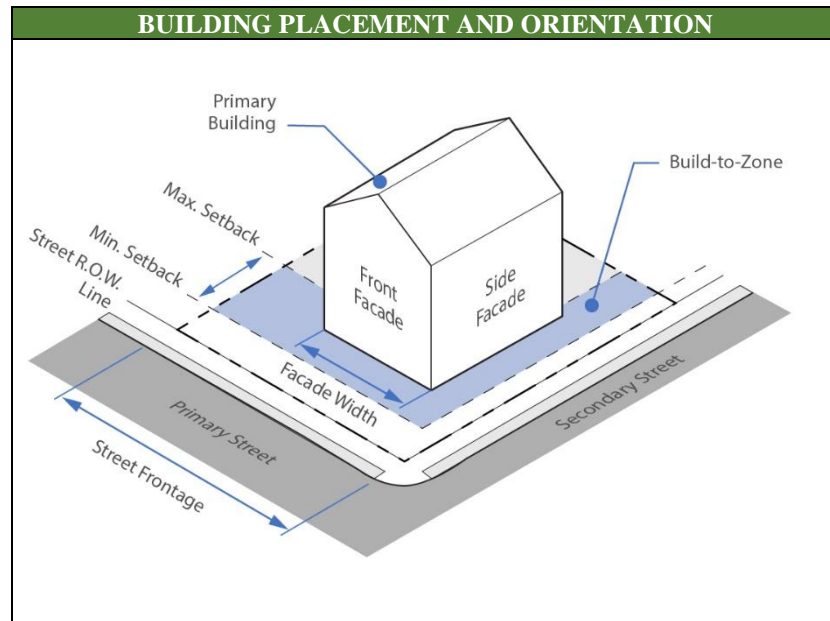
- a.) Large parking areas shall be relieved by trees and landscaping in islands of a minimum of 8 feet in width, equal in depth to the depth of a typical parking space and located such that there is one island per 10 continuous spaces.
- b.) Alternatively, at least 5% of the interior area of the lot shall be devoted to landscaping. Areas described in the above shall have at a minimum one shade tree with a minimum caliper of 2 ½ inches diameter breast height (DBH). Trees planted in such locations shall be planted in protected pervious areas which have a minimum dimension of 5 feet.

12.9.2.3 Trash and Service Areas

- a.) All service, loading and trash storage areas viewable from a public right of way or from an adjacent residential area shall be screened by one or a combination of masonry, a wood screen, or evergreen plantings to reduce their visual impact.
- b.) Loading and service areas shall not face any residential area unless no other location is possible. Loading areas shall be subject to screening requirements stated herein.
- c.) Garage doors and loading spaces are prohibited on the front façade of any building unless no other location is feasible.

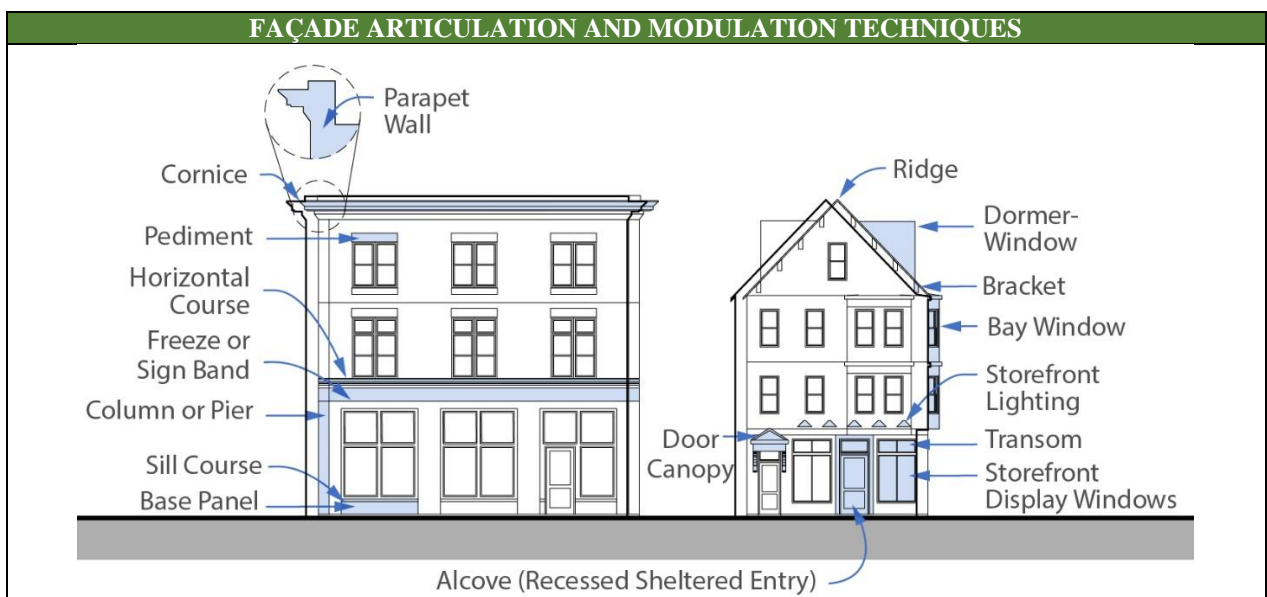
12.10 Design Standards

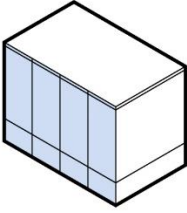
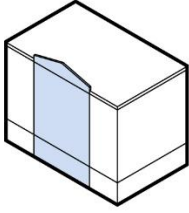
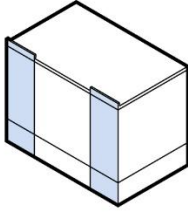
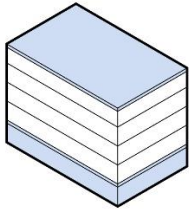
12.10.1 Placement and Orientation. Buildings shall be oriented parallel to the front setback line to preserve a consistent façade line with the street. Primary building entrances should easily be identified and be oriented to the street. The primary entry should be clearly visible from the public street which provides the building's main orientation.



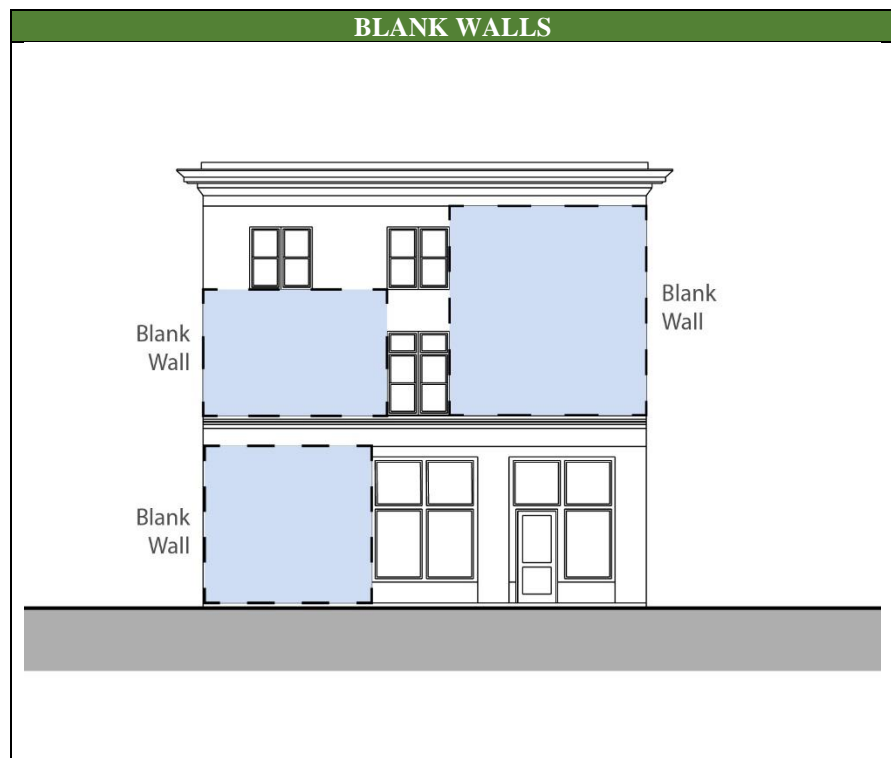
12.10.2 Façade Articulation. New and redeveloped buildings should reinforce the character of the existing streetscape by creating visual interest and reinforcing pedestrian scale. The apparent bulk and large wall expanses of multi-story buildings as well as single story buildings of 15' height or more should be minimized by incorporating one or preferably a combination of the following:

- 12.10.2.1 Windows
- 12.10.2.2 Architectural Details
- 12.10.2.3 Canopies
- 12.10.2.4 Overhangs
- 12.10.2.5 Indented Bays
- 12.10.2.6 Change of Building Materials

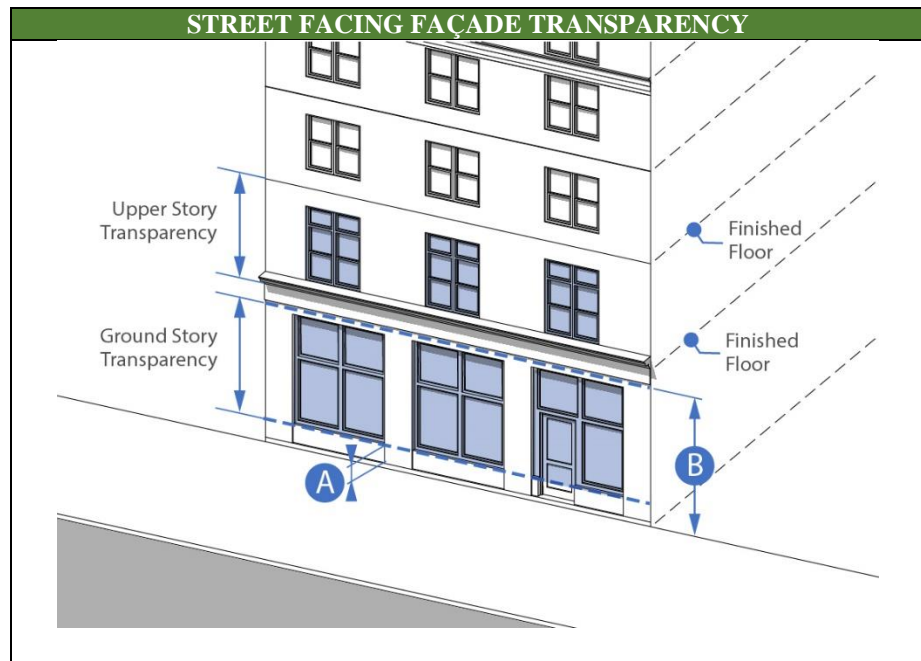


Façade Architectural Components and Articulation Techniques			
			
Equal	Central	Ends	
Vertical (left) and Horizontal (right) Street Facing Facade Modulation Techniques			

12.10.3 Blank Walls. Large expanses of blank walls are prohibited for commercial and mixed use buildings. The ground floor facade along the primary street shall have continuous storefront windows, with the exception of necessary piers, columns, pilasters, and related elements.



12.10.4 Transparency. For commercial and mixed- use buildings, a minimum of 60% of the building façade oriented to the street must be comprised of clear windows that provide views to indoor retail space, dining space or product areas when applicable. Where parking occupies the ground floor the same solid to void ratio must be achieved utilizing techniques such as half-walls, grillwork, or landscaped trelliswork or their equal.



12.10.5 Doors and Entrances.

- 12.10.5.1 Buildings must have a primary entrance facing a public street or way and should be visually prominent.
- 12.10.5.2 In buildings with multiple ground floor tenants entries should provide a coordinated design theme i.e. a common canopy, architectural projection or awning design.

12.10.6 Pedestrian Spaces and Comfort. For the purpose of providing a pedestrian friendly environment in the VMU, new and redeveloped buildings should provide for outdoor seating areas, scaled to the size and demands of the proposed use, where feasible. For example, a large, multi-story project should provide a patio or small plaza area located near the front entry with multiple benches and landscaping.

- 12.10.6.1 Outdoor Seating. A development project with ground floor retail such as a restaurant may provide an area for outdoor dining which extends the indoor dining space for seasonal use. A ground floor use may provide a sidewalk bench where there is sufficient width. Such pedestrian areas are best

located when they take advantage of southern exposure and provide space that affords visual connectivity but is setback from major pedestrian flow and vehicular ways and is appropriate to the location.

12.10.6.2 Outdoor Display. Outdoor sales and display areas should be well organized and located such as not to impede pedestrian circulation if located on a public walk or way.

12.10.6.3 General Standards. The following guidelines should be considered in the design and location of pedestrian spaces:

- a.) Flexible design to allow for flexible use.
- b.) Buffering from major vehicular areas such as parking lots or main traffic ways.
- c.) Lighting for nighttime comfort and safety.
- d.) Appropriate street furnishing...i.e. benches, trash receptacles.
- e.) A focal element where appropriate such as a water feature, special landscape feature or public art installation
- f.) Decorative paving and seasonal planting.
- g.) South facing locations.
- h.) Visual connectivity, especially to important views such as an historic structure.
- i.) Appropriately scaled to the development.

12.10.7 Utilities.

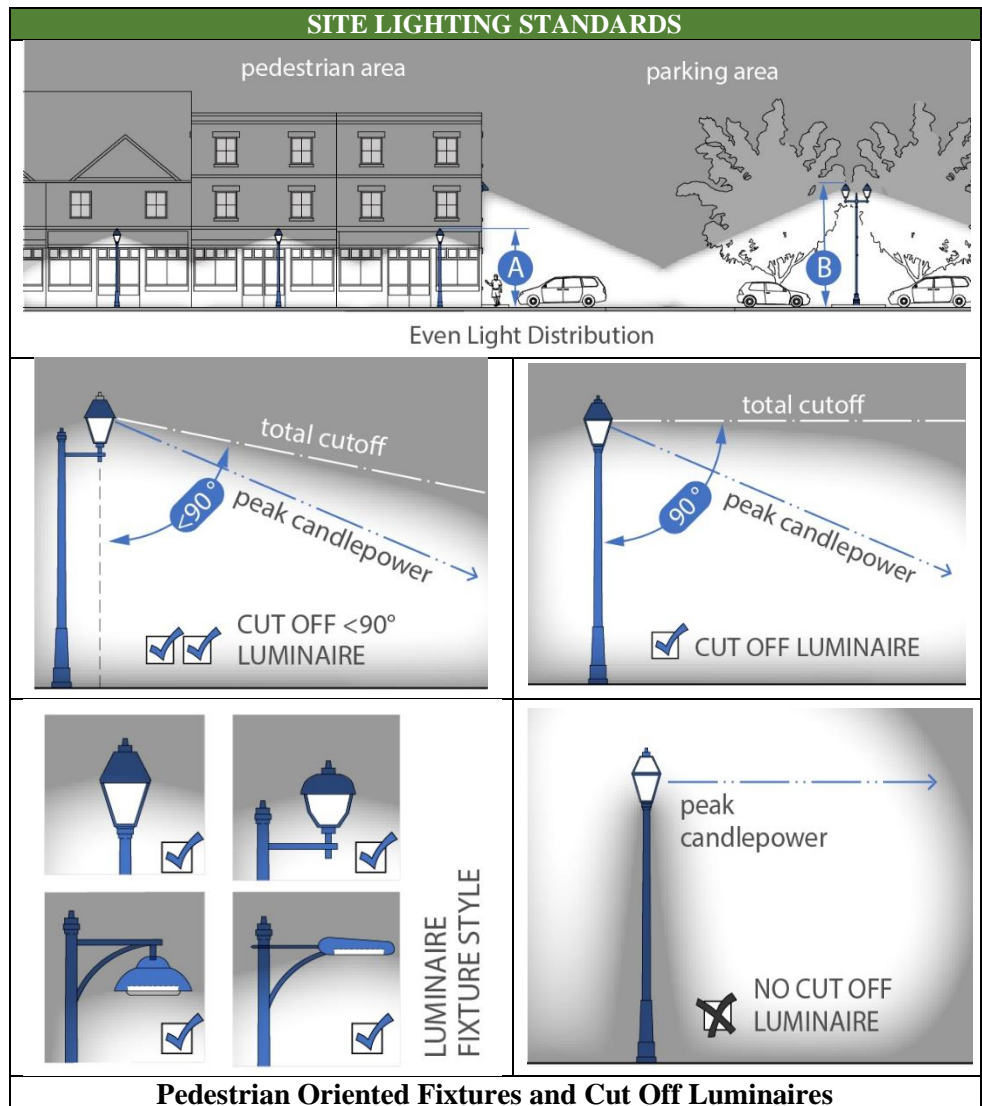
12.10.7.1 Underground Utilities. For new and redeveloped building are required unless physically restricted or blocked by existing underground obstructions.

12.10.7.2 Lighting. Site lighting, security lighting and architectural/landscape lighting should provide the user with illumination levels appropriate for the designed activity (i.e. parking, walking, outdoor dining) while meeting minimum requirements. Illumination levels should also be reasonably uniform throughout the site and strive to minimize glare. Provide adequate lighting levels in all pedestrian areas, including building entries, along walkways, parking areas, and other public areas. Provide the following in lighting plans:

- a.) An overlapping pattern of light at a height of about 10-15 feet in lighted pedestrian areas and 20 – 24 feet in parking areas.
- b.) Lighting at consistent lumens with a gradual transition to unlighted areas. Highly contrasting pools of light and dark can be temporarily

blinding and should be avoided.

- c.) In each lighted area, design lighting levels that will allow pedestrians to identify a face 15 yards away (generally, a minimum of 4 foot-candles). Adequate lighting reduces anonymity and gives pedestrians an opportunity to choose another route.
- d.) Adequate lighting at all building entrances, exits and corridors between buildings, at least 4 foot candles during active use, especially where doors are recessed.
- e.) Confine site lighting to the project site; use shields or other methods to eliminate glare on adjacent properties.
- f.) Place light posts and standards so that they do not create hazards for pedestrians or vehicles.
- g.) Indicate specific lighting levels in each lighted area.



12.10.8 Quality of Site furnishings. Provide for the following site plan elements:

- 12.10.8.1 High-quality materials in site furnishings and features, such as durable and easily maintained walls and paving.
- 12.10.8.2 Site features and furnishings that discourage vandalism. Furnishings that are easily removed or do not convey an image of care invite misuse.
- 12.10.8.3 Safety materials, such as non-slip walkway surfaces.

12.10.9 Signs.

- 12.10.9.1 It is encouraged that signs that project from the building are to be designed in such a way that they are compatible with the nature of VMU (e.g. wooden “antique-style” signs).
- 12.10.9.2 Sign materials in the VMU District for hanging signs: Traditional-looking materials such as wood, brass, bronze, or others are encouraged, as they are most appropriate. Wooden signs should be constructed of dense wood that will accept paint readily.

12.10.10 Water Supply Performance Standards.

- 12.10.10.1 All stormwater runoff generated from development and land use conversion activities shall not discharge untreated stormwater runoff directly to a wetland, local water body, municipal drainage system, or abutting property, without adequate treatment.
- 12.10.10.2 Annual groundwater recharge rates shall be maintained, by promoting infiltration and recharge through the use of structural and non-structural methods. At a minimum, annual recharge from the post development site shall equal the annual recharge from pre-development site conditions.
- 12.10.10.3 The stormwater runoff volume to be recharged to groundwater should be determined using the methods prescribed in the latest version of the Massachusetts DEP Stormwater Management Manual. The recharge requirements shall apply to all activities within the jurisdiction of this by-law except as noted, and unless specifically waived by the Planning Board.
- 12.10.10.4 All structural stormwater management facilities shall be selected and designed using the appropriate criteria from the most recent version of the Massachusetts DEP Stormwater Management Manual. For other structural stormwater controls not included in the Massachusetts Stormwater Management Manual, or for which pollutant removal rates have not been provided, the effectiveness and pollutant removal of the structural control must be documented through prior studies, literature reviews, or other means and receive approval from the Planning Board before being included

in the design of a Stormwater Management system.

12.11 Outdoor Amenity Space

12.11.1 General Standards.


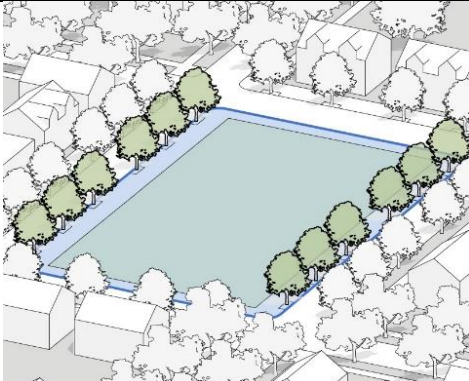
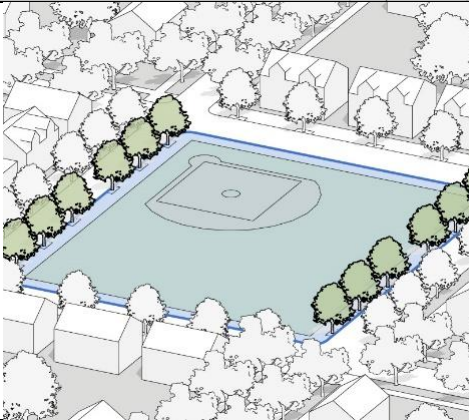
12.11.1.1 Types of Outdoor Amenity Spaces. Allowed The types Outdoor Amenity Spaces allowed in the VMU which are defined below:

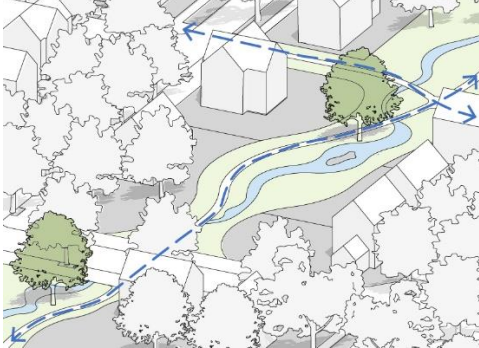


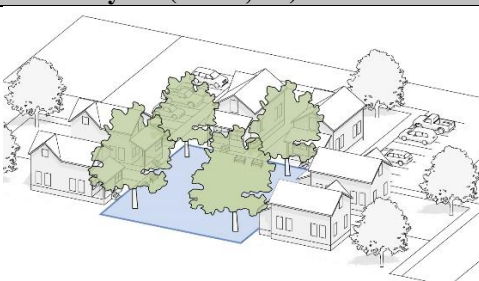
- a.) Civic Space (CS). Publicly-owned or controlled parks, active and passive recreation areas, civic buildings, and other gathering spaces that are fully available to the general public.
- b.) Publicly Oriented Private Spaces (POPS). Gathering spaces on private land primarily serving the residents, businesses and patrons of the principal building or development site, and generally available to the public.
- c.) Private Open Space (POS). Amenity spaces associated with individual dwelling units and is not intended for public access.

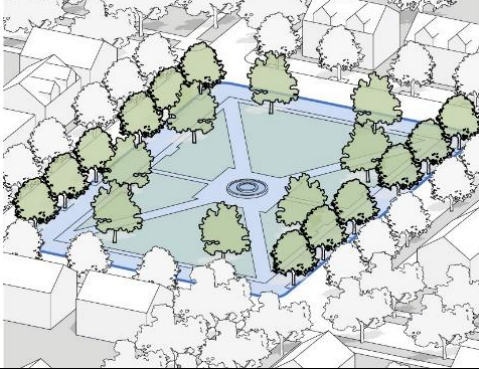

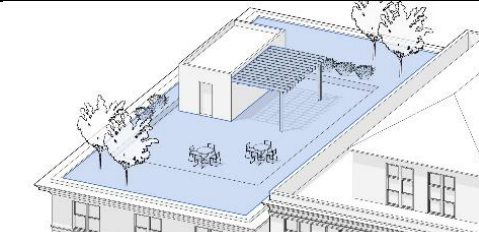

12.11.1.2 Required Outdoor Amenity Space. The required percentage of a building lot dedicated to outdoor amenity space is 10% of the land area unless otherwise specified in Section 12.6.2. Where multiple lots or buildings are assembled together to form a Development Site under Section 12.6.3, the required amount of Outdoor Amenity Space is the cumulative amount of all land area in the Development Site times the percentage required is 20%.

12.11.1.3 Payments in Lieu of Outdoor Amenity Space. By Special Permit from the Planning Board and approval by the Board of Selectmen, an applicant can make a contribution toward an existing or planned Civic Space within the VMU for which the principal building or development site is located in lieu of on-site outdoor amenity space. In reaching a decision, the Planning Board and Board of Selectmen shall determine that such contribution will have a significant impact on the walkability, vibrancy, multimodal access, and/or enhanced activation of public gathering areas within the VMU.

12.11.2 Permitted Outdoor Amenity Spaces. Outdoor Amenity Spaces are defined below and permitted in the identified VMU Districts:

OUTDOOR AMENITY SPACE	
Type	Description and General Design Standards
1. Park (CS, POPS) 	<p><u>Description:</u> An open space designed for active and passive recreation with features and facilities that support the community or immediate neighborhood. Parks can include other Outdoor Amenity Spaces such as community gardens, recreation fields and courts, trails and pathway, and other facilities intended for public events, gatherings, and organized activities.</p> <p><u>Design Standards:</u> Neighborhood Parks should be a minimum of 8,000 S.F.; 80% permeable surfaces; and 1 tree/350 SF on average.</p>
2. Common or Green (CS, POPS) 	<p><u>Description:</u> A common or green is a free-standing site with thoroughfares on all sides and landscape consisting of naturally disposed lawns, paths, and trees. This open space type is for active and passive recreation and gathering purposes.</p> <p><u>Design Standards:</u> Commons should be a minimum of 20,000 S.F.; 85% permeable surfaces; and 1 tree/2,000 SF on average.</p>
3. Recreation Field or Court (CS, POPS) 	<p><u>Description:</u> A publicly accessible open space designed and equipped for active recreation and organized sports. Playing fields and courts may include grass, artificial turf, clay, dirt, stone dust, concrete, asphalt, ice or other pervious or impervious materials to support various sporting organizations and events.</p> <p><u>Design Standards:</u> Not Applicable.</p>
4. Pathway (CS)	<p><u>Description:</u> A linear open space that may follow natural</p>

	<p>corridors providing unstructured and limited amounts of structured recreation. A pathway may be spatially defined by segment and include access to pedestrians, bicyclists, and other designated modes of transportation. Pathways may provide access and connections between natural areas, neighborhoods, villages, public facilities, and other points of interest.</p> <p><u>Design Standards:</u> Not Applicable</p>
<p>5. Community Garden (CS, POPS, PS)</p> 	<p><u>Description:</u> An open space designed as individual garden plots available to residents for agriculture purposes, including storage facilities for necessary equipment. Community gardens may be freestanding or incorporated as a subordinate feature of a community park, neighborhood or pocket park, and development site.</p> <p><u>Design Standards:</u> Community gardens should be a minimum of 5,000 S.F.; 90% permeable surfaces; and 1 tree/500 SF on average.</p>
<p>6. Forecourt (POPS, PS)</p> 	<p><u>Description:</u> A private open space where a portion of the facade is aligned close to or at the Street ROW Line, and the central portion of the façade is set back to create a courtyard with a principal entrance at-grade and space for gathering and circulation, or for outdoor shopping or restaurant seating. The forecourt may be planted or paved to join with the public sidewalk.</p> <p><u>Design Standards:</u> Not Applicable.</p>
<p>7. Courtyard (POPS, PS)</p> 	<p><u>Description:</u> A courtyard (or court) is an enclosed open space, often surrounded by a building or buildings, that is open to the sky. Courtyards may include a variety of passive recreational activities, community gardens, and other amenities for community gatherings.</p> <p><u>Design Standards:</u> Not Applicable.</p>
<p>8. Plaza or Square (CS, POPS)</p>	<p><u>Description:</u> An open space type designed for passive recreation,</p>

	<p>civic purposes, and commercial activities, with landscape consisting primarily of hardscape. Plazas are generally located in activity centers or the nexus of major circulation routes.</p> <p><u>Design Standards:</u> Squares should be a minimum of 8,000 S.F.; 50% permeable surfaces; 1 tree/2,000 SF on average; and include public seating.</p>
<p>9. Outdoor Dining Terrace (POPS)</p> 	<p><u>Description:</u> An open space where the building facade is setback from the Street ROW Line and the space between is occupied by a hardscape intended for use as an extension of the public sidewalk and outdoor amenity space such as for outdoor seating or displays. The terrace provides may also allow for public circulation along the façade and can be used to provide at-grade access or a grade change along a Street Line.</p> <p><u>Design Standards:</u> Where terraces are elevated above the public sidewalk they are required to meet ADA requirements for individual or shared entries facing the street.</p>
<p>10. Rooftop Terrace (POPS, PS)</p> 	<p><u>Description:</u> A roofless, raised platform on the roof of a building that provides community gathering space such as a terrace, community garden, food and entertainment, or other outdoor amenities.</p> <p><u>Design Standards:</u> Not Applicable.</p>
<p>11. Common Yard and Garden (PS)</p> 	<p><u>Description:</u> A private open space associated with private residence or non-residential buildings not intended for public access or a high level of pedestrian activity.</p> <p><u>Design Standards:</u> Where applicable, a walkway should be provided between the public sidewalk and the front door.</p>
<p>12. Other OAS Types</p>	<p>Permitted by Special Permit by the Planning Board</p>

12.11.3 Building Frontage Zones. A Building Frontage Zone is the setback space between the front façade of the primary building and the Street ROW Line. Building Frontage Zone uses must provide a compatible transition and interface between the private realm (buildings and uses) and the public realm (sidewalks, thoroughfares, and civic spaces). Outdoor Amenity Spaces are required in the Building Frontage Zone, and Publicly Oriented Private Spaces (POPS) are requirements in the VMU.

12.11.4 Building Frontage Encroachments. Building Façade Encroachments including outdoor dining areas, accessory signs and displays, projecting signs and awning, and related attributes that extend into the Public ROW and contribute to the activation of the Public Realm, walkability, and enjoyment of the public may be allowed by the Planning Board with a Special Permit. All building frontage encroachments shall comply with all other applicable town ordinances.

12.12 Public Realm Standards

12.12.1 Purpose.

- 12.12.1.1 To ensure the development of a well-connected travel network, composed of direct and convenient routes that reinforce the VMU and Grafton as a walkable, bikeable, and human-scaled urban environment.
- 12.12.1.2 To encourage “Complete Streets” that accommodate multiple modes of transportation, consistent with the character of traditional neighborhood and village centers, and attractive to pedestrians and bicyclists.
- 12.12.1.3 To ensure pedestrian safety and comfort, promote economic vitality, preserve and enhance the character of the public realm along primary streets, and promote the social, environmental, and health benefits provided by a walkable development pattern.

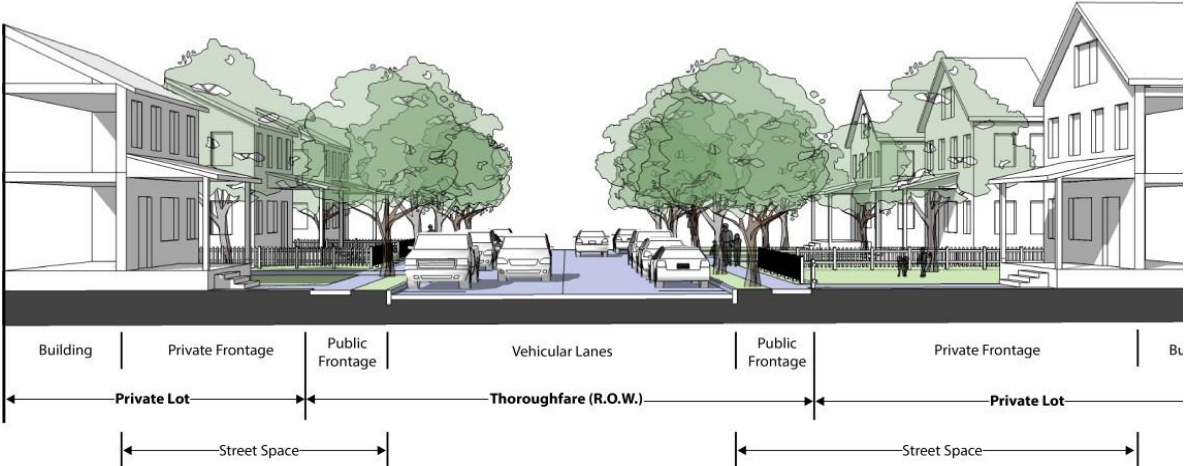
12.12.2 Standards for All Traveled Ways.

- 12.12.2.1 Traveled Ways must include vehicular lanes and sidewalks, excluding alleys.
- 12.12.2.2 Traveled Ways must be constructed in accordance with Section 5 of the Town of Grafton Subdivision Regulations. In the absence of official standards, Traveled Ways must be designed and constructed according to the standards deemed to be appropriate by the Town Engineer and Planning Board.

12.12.3 Street Design Standards.

- 12.12.3.1 Street Design Hierarchy. The table below provides standards for Primary, Secondary and Access Streets in the VMU:

STREET HIERARCHY AND DESIGN STANDARDS



Street Component	Primary Street Type 1 (P1)	Primary Street Type 2 (P2)	Secondary Street (SS)	Access Street (AS)
Right-Of-Way	60 Ft	50 Ft	40 Ft	30 Ft
Vehicle Lanes				
Travel Lane	12 Min.	11 Min.	10 Min.	10 Min.
Parking Lane	8 Min.	8 Min.	1 Side or Informal	N/A
Bike Lanes	Optional (5 Ft. Min.)	Optional (5 Ft. Min.)	N/A	N/A
Public Frontage				
Sidewalk/Pathway	5 Ft Min.	4 Ft. Min.	4 Ft Min.	4 Ft. Min.
Planting Strip	4 Ft. Min.	4 Ft. Min	4 Ft. Min.	4 Ft. Min.
Furnishing Zone	Optional	Optional	N/A	N/A

12.12.3.2 Vehicle Travel Lanes.

- a.) Motor vehicle travel lanes may have a width between ten (10) feet minimum and twelve (12) feet maximum.
- b.) No more than two (2) motor vehicle travel lanes may be combined for any single direction of traffic flow.

12.12.3.3 On-Street Parking Lanes.

- a.) Motor vehicle parking lanes are required and must be eight (8) feet wide minimum and twenty-two (22) feet long maximum for perpendicular parking; and nine (9) feet wide and eighteen (18) feet long for diagonal parking.
- b.) Diagonal on-street parking space must be a 45⁰ angle and may be head-in or reverse-angle parking.

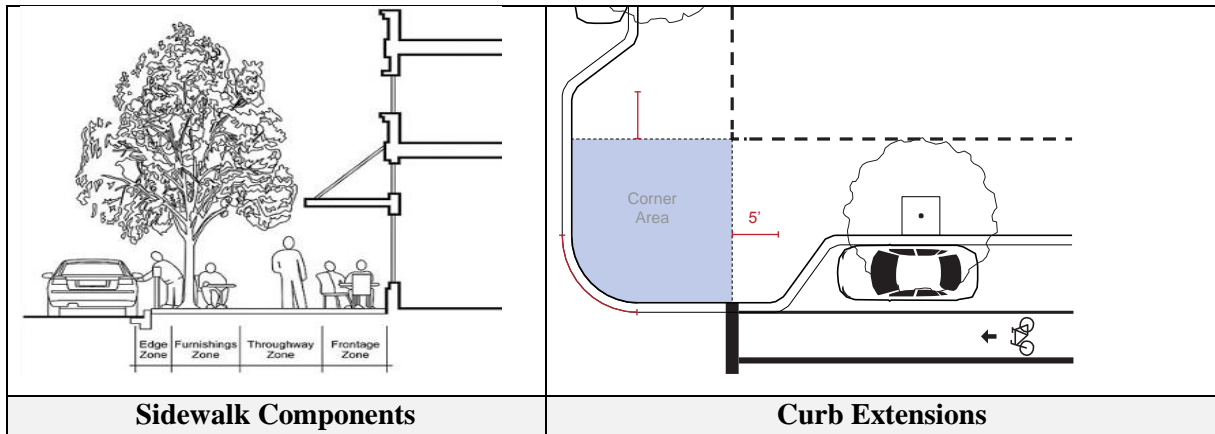
12.12.3.4 Sidewalks and Pathways.

- a.) All new and reconstructed sidewalks must be accessible to and usable by persons with disabilities in accordance with the Americans with Disabilities Act and the Rules and Regulations of the Massachusetts Access Board (521 CMR), as amended.
- b.) Sidewalks must include a Throughway (main walkway) and Furnishing Zone and may include an Edge and/or Frontage Zone as illustrated in the figure below.
 - 1) Throughway zones (i.e. “walkways”) must be concrete and a minimum of five (5) feet in width.
 - 2) Furnishing zones must be concrete with tree pits with grates and a minimum of four (4) feet in width.
 - 3) Edge zones must be concrete, brick, and stone materials with a granite curb and a minimum of two (2) feet in width.
 - 4) Public Frontage zones maybe used for Publicly Oriented Private Spaces (POPS) and Building Encroach in accordance with the Outdoor Amenity Space standards in Section 12.11.
- c.) The pavement design of walkways must be continuous for the full length of each block face.

12.12.3.5 Curb Extensions (Bulb-Outs).

- a.) Sidewalk extensions must occupy the full width of the parking lane they extend into.
- b.) When a bike lane is present, sidewalk extensions must be set back so that the gutter does not extend into the bike lane.
- c.) At corners, sidewalk extensions must run at least five (5) feet from the corner area of the sidewalk as illustrated in the figure below.
- d.) At bus stops, sidewalk extensions must run at least fifty (50) feet from the corner area of the sidewalk.

SIDEWALKS AND CURB EXTENSIONS



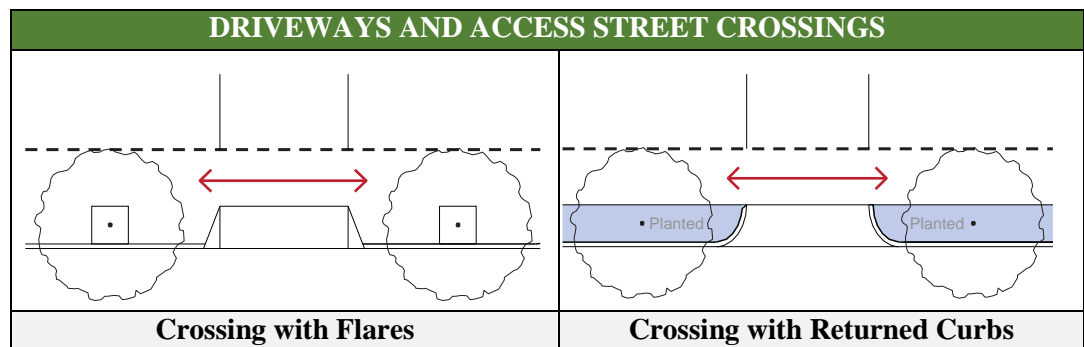
12.12.3.6 Street Trees.

- a.) Planting strips must include street trees planted within the Furnishing Zone in a regularly-spaced pattern no greater than forty (40) feet on center. Along Frontage Zones, street trees may be planted in an irregularly-spaced pattern to avoid visually obscuring storefront windows and signage.
- b.) When planted, street trees must be a minimum height of ten (10) feet and/or three (3) inches in caliper.
- c.) A minimum sixteen (16) square feet open soil area must be left around each street tree, centered at the tree trunk. When level with an adjacent walkway, the soil area must be protected by six (6) inch metal fencing and mulch must be applied to a minimum depth of three (3) inches. When recessed below an adjacent walkway, open soil areas must be protected by metal tree grates.
- d.) Sidewalks in front of terminated vistas and along civic space frontage may be granted a waiver from street tree requirements at the discretion of the Planning Board.
- e.) Trees planted on development sites in the VMU must be selected from Schedule D – Guide to Selection of Trees in the Grafton Subdivision Regulations.

12.12.3.7 Driveway and Sidewalk Crossings.

- a.) Driveway crossings traversing sidewalks with paved furnishing zones must be designed to maintain the grade and clear width of the walkway they cross and must include sloped flares on either side of the driveway apron as shown in the figure below.
- b.) Driveway crossings traversing sidewalks with continuously planted furnishing zones must be designed to maintain the grade and clear width of the walkway they cross and must include returned curbs as shown in the figure below.

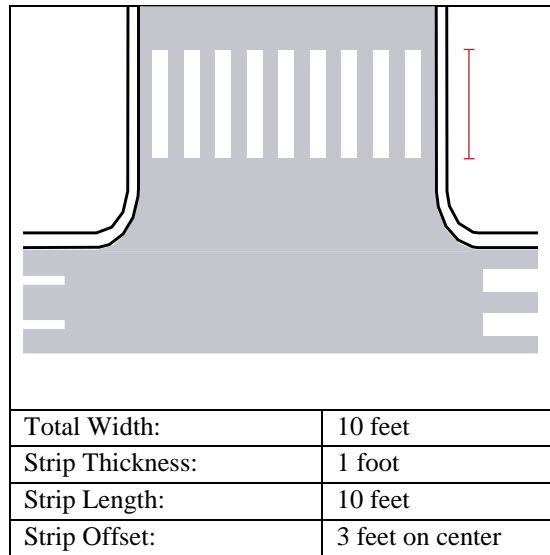
- c.) The appearance of any walkway (i.e. scoring pattern or special paving) must be maintained across any driveway or alley to indicate that, although a vehicle may cross, the area traversed by a vehicle remains part of the sidewalk.
- d.) Curb cuts may be no wider than the driveway or vehicular entrance they serve, excluding flares or returned curbs. Under no circumstances shall they be wider than 24 feet.



12.12.3.8 Pedestrian Crosswalks.

- a.) Crosswalks must be designed as shown in the figure below.
- b.) The Continental Crosswalk patterned is preferred by the Town of Grafton in the VMU.
- c.) Crosswalk markings must be aligned with the walkway of all adjacent sidewalks unless granted a waiver by the Planning Board.
- d.) Where the Throughway Zone (See Sidewalks and Curb Extensions figure above) is wider than the prescribed width of the crosswalk, crosswalk markings should be widened to match the walkway of the sidewalk.

PEDESTRIAN CROSSWALK



12.12.3.9 Pedestrian Passages.

- a.) Pedestrian passages must connect the sidewalk of one Traveled Way to another on opposite side.
- b.) Pedestrian passages may be designed with a covered atrium providing continuous protection from the elements or as an open air passage between buildings.
- c.) Open air pedestrian passages must be at least ten (10) feet in width, with a minimum eight (8) foot wide paved walkway designed as a continuation of the sidewalks they connect, including materials and sidewalk furnishings.
- d.) A covered pedestrian passage must be at least twenty (20) feet in width.
- e.) All pedestrian passages must be lighted using footlights, bollard lights, building lights, or street lights to provide for safety and visibility at night.

